

## What is a Dietary Supplement?

Dietary supplements may include the following substances: vitamins, minerals, herbs or other botanicals, amino acids, hormones, as well as product combinations. These products are intended for ingestion as capsules or powders and not as they typically occur in conventional foods, meals, or diets.



## Drugs Versus Dietary Supplements

Unlike drugs, dietary supplements are not required to undergo rigorous scientific studies to determine their effectiveness, safety, or appropriate dosages. While some supplements may have health benefits when used properly, others can actually be harmful. Some pose serious risks to safety, alertness, or ability to tolerate stress!

## Are dietary supplements regulated?

Dietary supplements are regulated as a food. With the passage of the Dietary Supplements Health and Education Act of 1994 (DSHEA), dietary ingredients used in dietary supplements are not subject to the premarket safety evaluations required of other new food ingredients.

## Types of Dietary Supplements

### Vitamins and Minerals

These are the most common supplements. Estimated requirements and recommended safe daily intake levels are provided by the Food and Nutrition Board of the Institute of Medicine.



### When selecting a vitamin or mineral supplement:

- Check the label and choose a multivitamin-mineral combination that does not exceed 100% of the Percent Daily Value (DV).
- Look for the "USP" notation on the label. This indicates that the product meets specific standards of quality, purity and potency established by the U.S. Pharmacopoeia.

## Herbal Preparations

These preparations are made of plant parts or oils. There are **no standards** for quality, potency, safety or effectiveness of herbal products. Identical products may differ markedly between manufacturers or batches. Many drugs are derived from the same plants used in herbal preparations. Therefore, some herbal preparations have the same potential side effects as manufactured drugs.

## Steroids and Glandulars

The term "steroids" refers to a large group of important substances (to include hormones) manufactured by the body. They also may be artificial; or extracted from the glands of animals. Potency of the steroids may vary widely. Steroid supplements are unnecessary for a healthy person, and pose significant risks of serious illness or even death.

## Amino Acids

Amino acids are parts of protein and are ordinarily supplied by food or made by the body. From a nutritional standpoint, most people do not require more amino acids than they eat in a healthy diet. Certain individuals on special diets such as vegan may benefit from supplements. Synthetic preparations are generally considered safe, although excessive use is considered unwise.

## Guidelines for Using Supplements

- Before selecting a supplement, do your own research on available supplements and the conditions for which they may be effective. However, never diagnose yourself or use a supplement instead of a proven medical treatment.
- DO NOT start using a supplement until you have discussed your desire to use a supplement with your medical provider.



- If you decide in consultation with your health care provider to use a supplement, be sure to read product labels, and closely follow directions for use. Start with a single product, and take the lowest dose. Increase the dosage gradually to no more than the recommended amount.
- Stop taking the supplement if you feel worse after taking it or if you develop new symptoms.
- If you are pregnant, breastfeeding, or taking prescription or FDA-reviewed over-the-counter medication(s), check with your health care provider first. Some supplements can interact negatively with certain drugs and/or foods.
- Purchase supplements from the most reliable producers. Established manufacturers and major companies are more likely to produce a quality product. Terms such as "natural" do not assure safety.
- Be wary of sensational claims. Remember the adage "If it sounds too good to be true, it probably is."
- If you experience an adverse effect or illness that you think is related to supplement use, immediately contact your health care provider.
- Check the FDA website for consumer warnings and general information.  
<http://vm.cfsan.fda.gov/~dms/supplmnt.html>.
- If you think you have experienced a serious reaction to a dietary supplement, please go to <https://www.accessdata.fda.gov/scripts/medwatch/> to complete the Online Reporting Form. If you would prefer to report the adverse experience by telephone, please call the FDA Office of Emergency Operations at 301-443-1240.

## Think before you consume...

### Vitamins and Minerals

Vitamin and mineral supplements should not be taken in doses exceeding Tolerable Upper Intake Levels (UL). This is the maximum level of a nutrient that can be consumed without adverse health effects.

### Herbal Preparations

Several herbal preparations present real danger to safety, alertness or physical well-being. The following are a few of the herbs known to be potentially dangerous. Do not use any substance containing these herbs without careful consultation with your health care provider or flight surgeon.

**Hallucinogens:** These may cause hallucinations or disorientation.

California poppy, European mandrake, Kava-kava, Magic mushrooms, Nutmeg (in doses greater than a tablespoon), Periwinkle, Thorn apple, Yohimbe bark

**Sedatives:** These may cause drowsiness, slow reaction time, or disorientation.

Celandine, Deadly nightshade, Hemlock, Henbane, Hops, Indian snakeroot, Jimson weed, Jin bu huan, Opium poppy, Passion flower, Scopolia, Skullcap, Valerian, Wild lettuce, Wolfsbane

**Cardiovascular Effects:** These may cause heart palpitations or a heart attack.

Broom, Ephedra (Ma Huang), Indian snakeroot, Lily of the valley, Pheasant's eye, Purple foxglove, Squill, Stophanthus, White squill, Yellow foxglove, Yerba Mate, Guarana

**Liver Poisons:** These may permanently damage the liver.

Borage, Chaparral, Colts foot, Comfrey, Germander, Life root, Thread leafed groundsel, Kava

### Sources of Reliable Information

When researching information on dietary supplements, be sure the information is provided by a registered dietitian, pharmacist or other medical expert in the field of supplements. Also be cautious of herbal information on the Internet. Much of this information is unreliable and may be nothing more than disguised advertisements. The sources below may be helpful.

U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM)  
<http://chppm-www.apgea.army.mil/dhpw/Wellness/dietary.aspx>

Navy Environmental Health Center (NEHC)  
<http://www-nehc.med.navy.mil/hp/>

Operational Alternative & Complementary Medicine (USAF)  
<http://www.brooks.af.mil/web/af/altmed/HOMEFRAME.htm>

National Center for Complementary and Alternative Medicine  
Phone: 1-888-644-6226  
Fax: (301) 495-4957  
<http://nccam.nih.gov>

Office of Dietary Supplements  
National Institutes of Health  
Phone: (301) 435-2920  
Fax: (301) 480-1845  
<http://dietary-supplements.info.nih.gov>

## Facts About Dietary Supplements for the Warfighter

**Herbs and Botanicals**  
**Amino Acids**  
**Steroids**  
**Vitamins and Minerals**



### Using This Brochure:

***This brochure is for information only, applicable regulatory guidance supersedes information contained herein.***

This information is **not** intended to take the place of a consultation with your health care provider. Rather, the information contained herein provides basic guidance for decision making regarding the consumption of dietary supplements.